

**REMARKS**

Applicants appreciate the detailed examination evidenced by the Official Action mailed October 4, 2005 (hereinafter "the Official Action"). In response, Applicants have canceled Claims 1-3, and have amended Claims 4, 6, 7 and 8 to depend from amended independent Claim 16. Claim 8 has also been amended to corrected a typographical error in the recited units. Accordingly, Claims 4-8-17 remain pending.

Applicants respectfully submit that the pending claims are patentable over the cited references for at least the reasons described herein. For example, the amended independent claims are patentable over Knorr, as Knorr does not disclose, at least, "etching back the bottom oxide layer inside an opening in the gap to expose side walls of the gap so that a residual bottom oxide layer remains only at a bottom of the gap" and "selectively growing a top oxide layer on the residual bottom oxide layer." Accordingly, Applicants respectfully request the withdrawal of all rejections and the allowance of all claims.

**Amended Independent Claims 9 and 16 are Patentable Over Knorr.**

Claims 1, 2, 4, 9, 10, 11, 12, 15, and 16 stand rejected under 35 U.S.C. § 102 over U.S. Patent No. 6,531,377 to Knorr et al. ("Knorr"). *Official Action, page 2*. Applicants have amended Claim 16 as follows:

forming a bottom oxide layer **only at a bottom of a gap** in the substrate; and  
**selectively growing a top oxide layer on the bottom oxide layer.**

Claim 9 has been similarly amended.

As an initial matter, Applicants respectfully point out that a rejection under § 102 requires that each and every element of the claim is found in a single prior art reference. *W. L. Gore & Associates Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983). Stated another way, all material elements of a claim must be found in one prior art source. *In re Marshall*, 198 U.S.P.Q. 344 (C.C.P.A 1978). "Anticipation under 35 U.S.C. § 102 requires the disclosure in a single piece of prior art of each and every limitation of a claimed invention." *Apple Computer Inc. v. Articulate Systems Inc.* 57 USPQ2d 1057, 1061 (Fed. Cir. 2000). A

finding of anticipation further requires that there must be no difference between the claimed invention and the disclosure of the cited reference as viewed by one of ordinary skill in the art. *See Scripps Clinic & Research Foundation v. Genentech Inc.*, 927 F.2d 1565, 1576, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991). Additionally, the cited prior art reference must be enabling, thereby placing the allegedly disclosed matter in the possession of the public. *In re Brown*, 329 F.2d 1006, 1011, 141 U.S.P.Q. 245, 249 (C.C.P.A. 1964). Thus, the prior art reference must adequately describe the claimed invention so that a person of ordinary skill in the art could make and use the invention.

In view of the above described standard for a rejection under section 102, Applicants respectfully submit that Knorr does not disclose, for example, "forming a bottom oxide layer **only at a bottom of a gap** in the substrate." As shown in Figures 4-6 of Knorr, the first insulating material 116 is formed outside of the trenches 111, not **only at a bottom**, as recited in independent Claims 9 and 16.

Furthermore, Applicants respectfully submit that Knorr does not disclose, for example, "**selectively growing a top oxide layer on the bottom oxide layer**." As discussed, for example, at col. 4, line 64 to col. 5, line 9 of Knorr, a high density plasma chemical vapor deposition (HDP-CVD) process is used to deposit the second insulating material 126 as shown in Figure 5 therein. In contrast to Knorr, the amended independent claims recite **selectively growing a top oxide layer on the bottom oxide layer**, which Applicants respectfully submit is not disclosed by an HCP-CVD process as the selective growth is provided via **a reaction with the base material (i.e., the bottom oxide layer)**, not by depositing material. In other words, the deposition of Knorr does not disclose "selectively growing" as recited in amended independent Claims 9 and 16. Furthermore, Claims 4-8 and 10-15 are patentable at least per the patentability of amended independent Claims 9 and 16.

### **CONCLUSION**

Applicants have cancelled Claims 1-3, and have amended Claims 9 and 16 to further distinguish the patentable subject matter recited therein from Knorr. Accordingly, Applicants respectfully request the withdrawal of all rejections and the

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allowance of all claims in due course. If any informal matters arise, the Examiner is encouraged to contact the undersigned by telephone at (919) 854-1400.

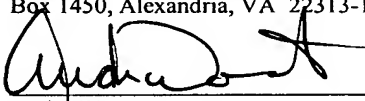
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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on December 5, 2005.

  
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